

GAMMA KNIFE®... SURGERY WITHOUT THE KNIFE

The Gamma Knife is actually not a knife, but a machine that delivers beams of highly focused gamma rays from 192 cobalt radiation sources. The Wallace-Kettering Neuroscience Institute at Kettering Medical Center and - the Leksell Gamma Knife® Perfexion™ brings stereotactic radiosurgical treatment to the highest level – offering advances in speed, safety, precision, dose planning, and patient comfort. This breakthrough technology dramatically reduces the risks involved with conventional surgery and minimizes harm to nearby healthy brain tissue.



INDICATIONS... WHEN CAN GAMMA KNIFE BE USED...

Our certified and experienced Gamma Knife team treats a wide range of brain disorders including:

- **Metastatic tumors** (tumors that have spread to the brain from cancers in other parts of the body)
- **Benign brain tumors** (acoustic neuromas, meningiomas and pituitary)
- **Some malignant brain tumors** (originating in the brain)
- **Trigeminal neuralgia** (facial pain)
- **Arteriovenous malformations** (AVMs)
- **Inoperable brain abnormalities**

Gamma Knife can be used to complement surgery or as an alternative to conventional brain surgery. Gamma Knife is an option for patients unable to tolerate surgery or general anesthesia. Gamma can be used in conjunction with or instead of traditional whole brain radiation.

OUR EXPERIENCED GAMMA KNIFE PERFEXION TEAM.

At the Gamma Knife Center our patients will be treated by an experienced team of professionals including: neurosurgeons, radiation oncologists, medical physicists, neuroradiologists and neuroscience nurses.

BENEFITS... WHY DOCTORS – AND PATIENTS – PREFER GAMMA KNIFE PERFEXION

The Perfexion enhances the patient experience above previous technology by:

- Greater patient comfort
 - Decreased treatment time, outpatient procedure, no surgical incision, minimal discomfort, general anesthesia is not required, most patients return to normal activities within a few days
- Cost effective
- Low post operative complications
- Greater safety with increased accuracy and reduced radiation exposure
- Cobalt radiation delivered conforms to tumor shape



- Multiple brain lesions can be treated in one session
- Enhanced quality of life through improved outcomes

WHAT TO EXPECT...

DAY OF TREATMENT

1. **Frame Placement** (*less than 10 minutes*) – A frame is placed on the patient's head using local anesthesia and mild sedation. The frame acts as a guide for treatment positioning.
2. **Imaging** – The patient will undergo an MRI or CT or cerebral angiogram. The images help your doctor locate the targets to treat.
3. **Treatment Planning** – During treatment planning the experienced staff determine the doses of radiation to deliver using sophisticated computer software.
4. **Gamma Knife Radiosurgery Treatment** – Lying on the treatment bed, the patient will not feel, see or hear anything unusual. Treatment time varies from a few minutes to several hours and is individualized for each patient.
5. **After Treatment** – When the frame is removed, the patient may experience a mild headache. Patients are generally monitored for about an hour and then discharged.

KETTERING MEDICAL CENTER... THE REGION'S ONLY FACILITY TO OFFER GAMMA KNIFE PERFEXION

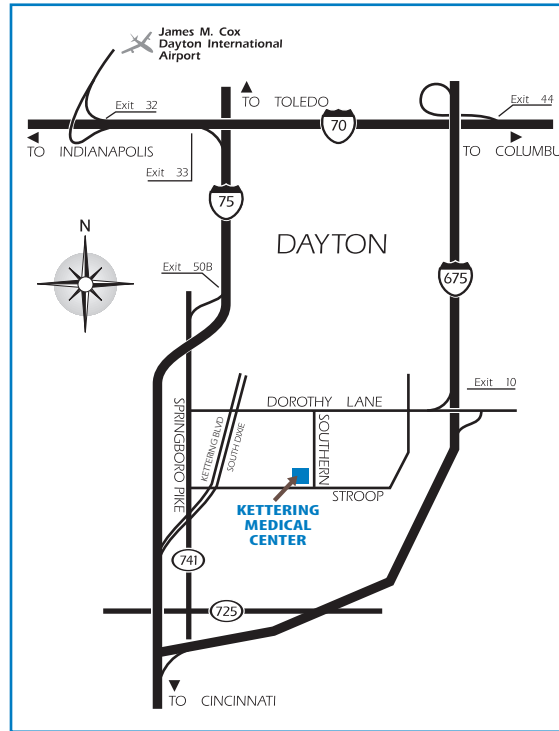
Kettering Medical Center is one of a select number of facilities in the world to offer Gamma Knife Perfexion radiosurgery to patients.

Gamma Knife has attained an impressive history of success through more than four decades of extensive research, clinical experience and imaging technology advances.

Specialized neuroimaging such as MRI, CT, angiogram, and PET (unique to the Wallace Kettering Neuroscience Institute) allows physicians to target the precise area of the brain that needs treatment. Gamma Knife is the "gold standard" for stereotactic radiosurgery. Our patients are among the over 500,000 people worldwide who have benefited from this revolutionary procedure.

FIND OUT MORE

Contact the Gamma Knife Center at 937-395-8488 or 800-834-9815 to learn how the Gamma Knife Perfexion can benefit you.



GAMMA KNIFE PERFEXION IS LOCATED AT KETTERING MEDICAL CENTER

3535 Southern Boulevard
Kettering, OH 45429


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